



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/591,301

09/01/2006

Goran Sundholm

U 016469-2

9248

140 7590 10/10/2008
LADAS & PARRY LLP
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER

HARP, WILLIAM RAY

ART UNIT

PAPER NUMBER

3651

MAIL DATE

DELIVERY MODE

10/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,301	Applicant(s) SUNDHOLM, GORAN	
	Examiner William R. Harp	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/1/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) was submitted on September 1, 2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20" and "38" have both been used to designate a collector member.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" has been used to designate both a pipeline and a collector member.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "12" has been used to designate both a nozzle and an ejector.
6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "121" has been used to designate both a pipe and a nozzle.
7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "38" has been used to designate both a collector member and a separator member.
8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 33, 41, and 136.

Art Unit: 3651

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

9. The disclosure is objected to because of the following informalities:
 - a. P1, L6&17; P2, L31; P3, L1 - There are references made to the claims in the specification. The claims should rely on the specification for support, not the other way around.Appropriate correction is required.

Claim Objections

10. Claims 4, 6, 14, and 16-22 are objected to because of the following informalities:
 - a. Claim 4, Line 2 - "liquidousand" should read -- liquidous and --.
 - b. Regarding Claims 16-22, the claims, drawn to an apparatus, are dependent upon claim 1, drawn to a method. The examiner notes that this appears to be in error. For the purposes of examination, the examiner will treat the claims as being dependent upon claim 14.

Art Unit: 3651

- c. Claim 6, Line 2 - “medium is ought regardless” should read -- medium is brought regardless --.
 - d. Claim 14, Line 7 - ‘least onenozzle” should read -- least one nozzle --.
 - e. Appropriate correction is required.
10. Claims 5-13, 19, and 20 recite the limitation "the second medium". There is insufficient antecedent basis for this limitation in the claims.
11. Claim 2 recites the limitation "sprayed liquid" in Line 1. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 9 recites the limitation "the gases" in Line 3 and “the suction pipe” in Line 3. There is insufficient antecedent basis for these limitations in the claim.
13. Claim 10 recites the limitation "the gases" in Line 2 and “the suction pipe” in Line 3. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 11 recites the limitation "the gas flow" in Line 2. There is insufficient antecedent basis for this limitation in the claim.
15. Claim 15 recites the limitation "the sprayed medium" in Line 2. There is insufficient antecedent basis for this limitation in the claim.
16. Claim 16 recites the limitation "the suction pipe" in Line 2. There is insufficient antecedent basis for this limitation in the claim.
17. Claim 22 recites the limitation "the gas flow" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 112

18. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3651

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 8, 11, 14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

20. Regarding Claim 8, it is recited that the second medium is sprayed to the ejector device. The terminology “to” does not indicate sufficiently how the second medium is sprayed in relation to the ejector device.

21. Regarding Claim 11, it is recited that a major part of the second medium is separated from the gas flow. It is unclear to the examiner as to the meaning of this limitation. The second medium is considered separated from the gas flow before it enters the ejector. It could also be considered separated from the gas flow after the separator member.

22. Regarding Claim 14, it is unclear as to whether or not the sprayed liquid mist recited in Line 7 is utilized as the actuating medium. It is recommended that the claim be amended to correct this ambiguity. Further, it is unclear if the liquid mist recited in Line 7 is the same liquid recited in Line 8.

23. Regarding Claim 16, it is recited that the at least one of the nozzle is arranged to the suction pipe. This recitation does not clearly establish the relationship between the nozzle and the suction pipe.

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3651

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

25. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tolman (USPN 1965866).

26. Regarding Claim 1, Tolman teaches a method for conveying material by means of a pressure difference in a conveying pipe (18), in which method the material is fed to a conveying pipe (through aperture 20), and further in the conveying pipe to a separator device (10, 17) in which the transferred material is separated from conveying air, in which method underpressure is achieved to the conveying pipe with an ejector apparatus (46) the suction side of which is combined with the separator device (Figure 4), which ejector apparatus is operated with an actuating medium (steam P2, L123-133), characterised in that liquid mist, especially aqueous liquid mist is utilised as the actuating medium of the ejector apparatus.

27. Regarding Claim 14, Tolman teaches an apparatus (Figure 4) for conveying material, by means of a pressure difference in a conveying pipe (18), which apparatus comprises a conveying pipe for the material, a separator device (17), and a means for achieving underpressure to the conveying pipe with an ejector apparatus (46) the suction side of which is connected to the separator device, which ejector apparatus is operated with an actuating medium (steam, P2, L123-133), characterised in that the ejector apparatus comprises at least one nozzle (illustrated in Figure 4 inside ejector 46) for spraying liquid mist and utilising as the actuating medium of the ejector and a means (52, 53) for feeding the liquid for the nozzle.

28. Regarding Claim 16, the nozzle is arranged to the suction pipe (16).

29. Regarding Claim 17, Tolman teaches a least one ejector nozzle (46), an ejector pipe (16), and a separator member (10).

Art Unit: 3651

30. Regarding Claim 21, Tolman teaches a means for separating liquidous and/or solid matter from the gas flow (10, 17).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 2 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Tolman as applied to claim 1 above, and further in view of British Document (GB 288862, hereafter GB '862).

4. Regarding Claims 2 and 15, Tolman teaches the limitations above, yet fails to teach the sprayed liquid is collected and recirculated. GB '862 teaches a collecting means (r) for collecting and re-using water used in an ejector [P2, L108-116]. It would have been obvious to collect and re-circulate the sprayed liquid to increase the efficiency of the process.

Art Unit: 3651

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tolman as applied to claim 1 above, and further in view of Morohashi et al. (USPN 6974279).

6. Regarding Claim 3, Tolman teaches the limitations above, yet fails to teach that the medium is sprayed with several nozzles. Morohashi et al. teaches an ejector (Figure 4) with several nozzles (15a, 22). It would have been obvious to use several nozzles to increase the suction effect of the ejector apparatus.

7. Regarding Claim 22, Tolman teaches the limitations above, yet fails to teach a rotating movement in the separating means. Morohashi et al. teaches a cyclone separator (7), the operation of which is well known in the art to produce a rotational movement of the material inside. It would have been obvious achieve a rotating movement inside the separator to facilitate separate of the constituents.

8. Claims 4-11, 13, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolman as applied to claim 1 above, and further in view of EPO Document (EP 1179682 A2, hereafter '682) and Morohashi et al..

9. Regarding Claims 4, 5, 6, 13, and 18, Tolman teaches the limitations above, yet fails to teach a second medium. '682 teaches an ejector utilizing a second medium (Figure 2, Q3). '682 further teaches that the second medium is a liquidous [Para. 9] medium. Morohashi et al. teaches that air, a gaseous medium may be used instead [C8, L62-65]. It would have been obvious to utilize a second medium to clean the ejector and that the second medium could be a liquid or gas, depending on the application.

10. Regarding Claim 7, Tolman teaches the limitations above, yet fails to teach the proportion of the second medium and the actuating medium is regulated. '682 teaches that the

Art Unit: 3651

flow rate of Q3 can be set optimally depending on the configuration of the ejector and/or the flow rate of Q2 [Para. 15]. It would have obvious to regulate the proportion of the mediums as taught by '682.

11. Regarding Claims 8-10, Tolman teaches the limitations above, yet fails to teach the how the second medium is sprayed in relation to the ejector device. '682 teaches (Figures 2, 3, and 4) that the second medium can be injected at various locations as desired. It would have been obvious to specify the location of the second medium as required by the application.

12. Regarding Claim 11, Tolman teaches the limitations above, and further teaches an air washing chamber (10) that separates the sprayed water from the gas flow. Tolman fails to teach the second medium, however, '682 teaches the second medium as described above. It would have been obvious to separate the second medium from the gas flow in a manner similar to the separation of the water and gas flow as taught by Tolman.

13. Regarding Claims 19 and 20, Tolman teaches the limitations above, yet fails to teach a nozzle for bringing the second medium. '682 teaches a nozzle (10) for bringing the second medium. It would have been obvious to use a nozzle to introduce the second medium into the ejector. Further, the ejector produces a vacuum by which to draw fluid Q2 into the ejector. It would suffice to say that it would produce a vacuum in the nozzle (10) as well, which would draw the liquid Q3 into the ejector.

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tolman as applied to claim 1 above, and further in view of Morohashi et al. and Japanese Document (JP 9301504, hereafter '504, abstract provided by applicant).

Art Unit: 3651

15. Regarding Claim 12, Tolman teaches the limitations above, yet fails to teach odor elimination or suction effect intensification by the second medium. Morohashi et al. teaches, as described above, the intensification of the suction effect by the second medium. '504 teaches supplying a deodorizing agent (abstract). It would have been obvious to use the second medium to eliminate odors in refuse conveying.

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 4-13 and 18-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10591302. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter of the instant application is fully encompassed by the subject matter of copending Application No. 10591302.

Art Unit: 3651

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art is directed to pneumatic conveying with separation devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William R. Harp whose telephone number is (571) 270-5386. The examiner can normally be reached on Monday - Thursday, 8:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/
Supervisory Patent Examiner, Art Unit
3651

/W. R. H./

Application/Control Number: 10/591,301

Page 12

Art Unit: 3651

Examiner, Art Unit 3651